

# ISO 5172:2006-04 (E)

## Gas welding equipment - Blowpipes for gas welding, heating and cutting - Specifications and tests

---

<b>Contents</b>		<b>Page</b>
Foreword .....		v
Introduction .....		vi
1	Scope .....	1
2	Normative references .....	1
3	Terms and definitions .....	2
3.1	Mixing system .....	2
3.2	Blowpipes classified according to the possibility of varying the gas flow rate .....	4
3.3	Cutting and heating blowpipes classified according to the mixing position .....	5
3.4	Operational incidents .....	5
3.5	Flame specifications (reference values) .....	5
4	Hose connections .....	6
5	Material .....	6
6	Marking .....	7
6.1	General .....	7
6.2	Marking of the blowpipe .....	7
6.3	Marking of oxygen and fuel gas valves .....	7
6.4	Marking of nozzles .....	7
6.5	Marking of interchangeable components .....	7
6.6	Marking of cutting attachment .....	7
6.7	Marking of mixing systems .....	7
6.8	Gases to be used, symbols for gases .....	8
7	Safety and operational requirements .....	8
7.1	Safety requirements .....	8
7.2	Operational requirements .....	9
8	Tests .....	9
8.1	General .....	9
8.2	Leak test .....	10
8.3	Sustained backfire test .....	10
8.4	Test for stability in wind for fuel gas/compressed air flames .....	22
8.5	Valve endurance test .....	23
8.6	Backflow test for all blowpipes .....	23
9	Typical dimensions of machine cutting blowpipes .....	25
10	Instructions for use .....	26
Annex A (informative) Corresponding flow rates for the most common fuel gases .....		27
Annex B (informative) Terminology concerning welding and cutting blowpipes and example of construction .....		28
Annex C (informative) Approximate mixing ratios for normal flames .....		37

<b>Annex D (informative) Marking of components of a blowpipe .....</b>	<b>38</b>
<b>Annex E (informative) Typical dimensions of machine cutting blowpipes .....</b>	<b>39</b>
<b>Annex F (informative) Cutting-nozzle seat angles .....</b>	<b>41</b>
<b>Annex G (normative) Alternative sustained backfire test -- Use with all blowpipes .....</b>	<b>42</b>
<b>Annex H (informative) Alternative sustained backfire test -- Production and field acceptance .....</b>	<b>43</b>
<b>Annex I (normative) Alternative colour codes for oxygen .....</b>	<b>44</b>
<b>Bibliography .....</b>	<b>45</b>